AGENCY USE ONLY				
PERMIT NO.: MT601052	Date Rec'd.: 10/30/13	Amount Rec'd.: 600	Check No.: 18627	Rec'd By: DD

RECEIVED
OCT 29 2013
WPB
PERMITTING & COMPLIANCE DIV.

Montana Department of Environmental Quality

WATER PROTECTION BUREAU

FORM **NOI**

Notice of Intent (NOI) for Montana Pollution Discharge Elimination System Application for New and Existing Concentrated Animal Feeding Operations

The Application form is to be completed by the owner or operator of a Concentrated Animal Feeding Operation (CAFO) or Aquatic Animal Production Facility. Please read the attached instructions before completing this form. You must print or type legibly; forms that are not legible or are not complete will be returned. You must maintain a copy of the completed application form for your records.

Section A - Application Status *(Check one):*

- ☐ New — No prior application submitted for this site.
- ☐ Resubmitted — Permit Number: MTG 010052 - our #
- ☑ Renewal — Permit Number: MTG ~~A10000~~ - general permit #
- ☐ Modification — Permit Number: MTG _____

Section B - Facility or Site Information *(See instruction sheet.):* 10/31/13

Site Name 3 Hangin' C Dairy

Site Location 3640 Linney Road Bozeman, MT 59715

Nearest City or Town Belgrade County Gallatin

Latitude ~ 45½°N Longitude ~ 111°W

Date Facility began operation? 1966

Is this facility or site located on Indian Lands? ☐ Yes ☒ No

Section C - Applicant (Owner/Operator) Information:

Owner or Operator Name Larry & Lorraine Klompien

Mailing Address 3069 W. Cameron Bridge Rd

City, State, and Zip Code Manhattan, MT 59741

Phone Number 406-282-7697

Is the person listed above the owner? ☒ Yes ☐ No

Status of Applicant *(Check one)* ☐ Federal ☐ State ☒ Private ☐ Public ☐ Other (specify) _____

Section D - Existing or Pending Permits, Certifications, or Approvals: ☒ None

☐ MPDES _____ ☐ RCRA _____

☐ PSD (Air Emissions) _____ ☒ Other ~~SIC 241 Dairy farm~~

☐ 404 Permit (dredge & fill) _____ ☐ Other _____

Section E – Standard Industrial Classification (SIC) Codes:

Provide at least one SIC code which best reflects the activity of project described in Section H.			
Code	**A. Primary**	**Code**	**B. Second**
1	241 - Dairy farm	2	
Code	**C. Third**	**Code**	**D. Fourth**
3		3	

Section F - Facility or Site Contact Person/Position:

Name and Title, or Position Title Larry or Lorraine Klompien

Mailing Address 3069 W. Cameron Bridge Rd

City, State, and Zip Code Manhattan, MT 59741

Phone Number 406-282-7697

Section G – Receiving Surface Waters(s):

Outfall/Discharge Locations: For each outfall, List latitude and longitude to the nearest second and the name of the receiving waters			
Outfall Number	**Latitude**	**Longitude**	**Receiving Surface Waters**
001	45.7561	-111.2471	Gallatin River
002			
003			
004			
005			

Map: Attach a topographic map extending one mile beyond the property boundaries or the site activity identified in Section B depicting the facility or activity boundaries, major drainage patterns, and the receiving surface waters, stated above. Also identify the specific location of the production area, and land application area(s).

Is the receiving water on the 303(d) list for nutrients (nitrogen and/or phosphorus) ☐ Yes ☒ No

Section H – Concentration Animal Feeding Operation Characteristics

Waste Production, Storage and Disposal

	Animal type	Number in Open Confinement	Number Housed Under Roof – Free stalls
☐	Mature Dairy Cows	250	
☐	Dairy Heifers	100	
☐	Veal Calves		
☐	Cattle (not dairy or veal)		
☐	Swine (55 lbs or over)		
☐	Swine (55 lbs or under)	NONE	
☐	Horses		
☐	Sheep or Lambs		
☐	Turkeys		
☐	Chickens (broilers)		
☐	Chickens (layers)		
☐	Ducks		
☐	Other (Specify:_____)		
☐	Other (Specify:_____)		
☐	Other (Specify:_____)		

Manure, Litter and/or Wastewater Production and Use.

How much manure, litter, and process wastewater is generated annually by the facility?

Solid (tons): 8200 Liquid/Slurry (gallons): 510,000

If land applied, how many acres of land under control of the permit applicant are available to apply the manure, litter, or process wastewater generated from the facility? (Note: Do not include setback distances in available acreage

480 Acres

How much manure, litter, and process wastewater is transferred to other persons per year? (estimated) Solid (tons): 0 Liquid/Slurry (gallons): Ø

Were the containment structures built after February 2006? No

- ☐ Do the waste containment structures have 10 feet of separation between the pond bottom and any bedrock formations?
- ☐ Do the waste containment structures have 4 feet of separation from the pond bottom and any ground water?
- ☐ Were any of the waste containment structures built within 500 feet of any existing well?

	Type of Containment/Storage	Total Capacity	Units (gallons or tons)	Days of Storage
☐	Anaerobic Lagoon			
☑	Storage Pond #1	60,000 ft^3	cubic ft	180
☑	Storage Pond #2	60,000 ft^3	cubic ft.	180
☐	Storage Pond #3			
☐	Storage Pond #4			
☐	Storage Pond #5			
☐	Above Ground Storage Tank			
☐	Below Ground Storage Tank #1			
☐	Below Ground Storage Tank #2			
☐	Underfloor Pits			
☐	Roofed Storage Shed			
☑	Concrete Pad 3 of them	13,125 ft^3	cubic ft	7
☐	Impervious Soil Pad			
☐	Other (Specify:_____)			
☐	Other (Specify:_____)			

Physical Data for CAFO

Nutrient Management Plan

All Concentrated Animal Feeding Operations seeking permit coverage after July 31, 2007 are required to complete and implement a Nutrient Management (NMP). The NMP must be submitted to the Department using the form provided by the Department (Form NMP). Check the box below that applies and provide the required information. The NMP must be developed in accordance with ARM 17.30.1334 and implemented upon the effective date of permit coverage. (Check One)

☒ Does the facility have an NMP?
Date NMP was developed: Sent to Helena DEQ Feb. 2009

Date NMP was last modified:_____

☐ NMP has not been prepared; provide detailed explanation below

Section I – Supplemental Information

Section J - CERTIFICATION

Permittee Information:

This Form NMP must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print)		
Larry Klompien + Lorraine K.		
B. Title (Type or Print)		**C. Phone No.**
Owners		406-282-7697
D. Signature		**E. Date Signed**
Larry Klomp		Oct. 21, 2013

The Department will not process this form until all of the requested information is supplied, and the appropriate fees are paid. Return this form (NOI) and the applicable fee to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

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AGENCY USE ONLY				
PERMIT NO.: MT6 010052	Date Rec'd.:	Amount Rec'd.:	Check No.:	Rec'd By:

Montana Department of
ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU

FORM
NMP

Nutrient Management Plan

READ THIS BEFORE COMPLETING FORM: Before completing this form (Form NMP), Concentrated Animal Feeding Operation (CAFO) operators need to read the General Permit, particularly Part IV.A. CAFO operators also need to read the "Instructions For filling out Form NMP," found at the back of this form. Form NMP is intended to help CAFO operators develop a site-specific Nutrient Management Plan, in compliance with Part IV.A of the General Permit and all applicable State rules and statutes. Your Nutrient Management Plan must be maintained at the site as required in Part III of the General Permit. Sections B and C on your Form NMP must state the information exactly the same way as it was stated on the most recently submitted version of your NOI-CAFO. Attach additional pages as necessary, indicating the corresponding section number on this NMP form. The 2013 General Permit, current fee schedule, and related forms are available from the Water Protection Bureau at (406) 444-3080 or http://www.deq.mt.gov/wqinfo/MPDES/CAFO.asp

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Section A – NMP Status:

- ☐ New — No prior NMP submitted for this site.
- ☐ Resubmitted — Previous NMP found incomplete.
- ☐ Modification — Change or update to existing NMP.
- ☑ New 2013 — New 2013 version of NMP.

Section B – Facility Information:

Facility Name 3 Hangin' C Dairy
Facility Location 3640 Linney Rd Bozeman, MT 59718
Nearest City of Town Belgrade County Gallatin

Section C – Applicant (Owner/Operator Information):

Owner or Operator Name Larry & Lorraine Klompien
Mailing Address 3069 W. Cameron Bridge Rd.
City, State, and Zip code Manhattan, MT 59741
Facility Phone Number 406-282-7697
Email milkareus@aol.com

Section D – NMP Minimum Elements:

1. Livestock Statistics		
Animal Type and number of animals	**# of Days on Site (per year)**	**Annual Manure Production (tons, cu. yds. or gal**
1. 250 Mature dairy Cows	365	6798 ton
2. 100 dairy heifers	365	949 ton
3. 90 Calves	365	328 ton
4.		
5.		
6.		
7.		
8.		

Method used for estimating annual manure production:

DEQ9 Circular (Feb 2006)
Table 1, page 12

1) 149#/day x 365 ÷ 2000 x 250
2) 52#/day x 365 ÷ 2000 x 100
3) 20#/day x 365 ÷ 2000 x 90

2. Manure Handling

a. Describe Manure handling at the facility: Manure scraped into concrete holding area daily then spread on fields every 3-5 days in spring + fall.

b. Frequency of Manure Removal from confinement areas:

3-5 days from free-stall alleys; 2-3 times per year from pens

c. Is this manure temporarily stored in any location other than the confinement area? ☒ Yes ☒ No
If so then how and where?

We store manure in the dry lot during the summer + winter when either crops are being grown or while the soil is frozen.

d. Is manure stored on impervious surface? ☒ Yes ☐ No
If yes, describe type and characteristics of this surface:

The dry lot area where it is stored has had manure stored there for over 45 yrs., so the ground would be sealed.

3. Waste Control Structures

Waste Control Structures (name/type)	Length (ft.)	Width (ft.)	Depth (ft.)	Volume (cubic ft. or gallons)	Number of days of storage
1. Concrete holding area #1	45	50	2	4500 ft^3	7 days
2. " " #2	48	50	2	4500 ft^3	7 "
3. " " #3	30	51	2.5	3825 ft^3	7 "
4.					
5. Lagoon #1	100	100	6	60,000 ft^3	180
6. " #2	100	100	6	60,000 ft^3	180
7.					
8.					
9.					
10.					
11.					
12.					

What is the 24 hr. 25 yr. storm event at this facility 2.4 inches

Production area: 19 **acres. Type of lot (dirt or paved):** dirt

Area contributing drainage form outside CAFO that enters confinement areas and waste storage, conveyance, or treatment structures: 0 **acres.**

What is the annual precipitation during the critical storage period 5 inches

How much freeboard do the pond(s) have ~~2.5 ft.~~ 2.5 ft.

4. Disposal of Dead Animals.

Describe how dead animals are disposed of at this facility:

We dig a 6" trench; bury them.

5. Clean Water Diversion Practices

Describe how clean water is diverted from production area:

Grass areas behind sheds & freestalls soak up rain water and run off. Driveways are graded to divert water from pens. The land is quite level so most water doesn't flow too far.

6. Prohibiting Animals and Wastes from Contact with State Waters

Describe how animals and wastes are prohibited from direct contact with state waters:

Berms & vegetation along the Moreland Canal. Pens are situated away from canal. Animals don't have access to the Canal.

Describe how Chemicals and other contaminants are handled on-site:

Chemicals are kept in sealed containers in the barn for dairy use (soaps, cleaners)

Farm/field chemicals are stored in original containers in the shop.

7. Best Management Practice (BMPS)

Describe in detail all temporary, permanent and structural BMPS which will be used to control runoff of pollutants from facility's production area. Indicate the location of these measures. If BMPS are not installed include a schedule for implementation of each of these measures. Examples of BMP measures could include but are not limited to: constructing ditches, terraces,, and waterways above and open lot to divert clean water run on; installing gutters, downspouts and buried conduits to divert roof drainage; providing more roofed area: decreasing open lot surface area; repairing of adjusting water systems to minimize water wastage; using practical amounts of water for cooling purposes; recycling water if practical and applicable.

Production Area BMP's

Berms & vegetation along the Moreland Ditch. The Roy Ditch is completely enclosed in culverts

Underground pipes control barn waste water & carry it to the lagoon.

Describe in detail all temporary, permanent and structural Best Management Practices (BMPs) which will be used to control runoff of pollutants from facility's land production area. Indicate the location of these practices. If not already in use, include a schedule for implementation of each of these measures. Attached details and specifications may be used to supplement this description. Examples of BMP measures could include but are not limited to: maintaining setbacks from surface waters for manure applications; managing irrigation practices to prevent ponding of wastewater on land application sites;

never spray irrigating waste on to frozen ground: consulting with the Department prior to applying any liquid waste to frozen or snow-covered ground; applying wastes at agronomic rates.

Land Application BMP's

Berms with vegetation and culverts prevent waste water from reaching state waters (prevent any waste water from entering the Mineland or Roy's ditch) Berms do not have access to state waters

Buffers	☑ Yes ☐ No	**Conservation Tillage**	☐ Yes ☐ No
Constructed Wetlands	☐ Yes ☑ No	**Grass Filter**	☒ Yes ☐ No
Infiltration Field	☐ Yes ☑ No	**Residue Management**	☐ Yes ☐ No
Set backs	☐ Yes ☐ No	**Terrace**	☒ Yes ☐ No

Other examples

8. Implementation, Operation, Maintenance and Record Keeping – Guidance

The permittee is required to develop guidance addressing implementation of NMP, proper operation and maintenance of the facility, and record keeping as described in Part 2 of the permit.

Has a guidance document been developed for the facility? ☑ Yes ☐ No

Certify the document address the following requirements:

Implementation of the NMP:	☑ Yes ☐ No
Facility operation and maintenance:	☑ Yes ☐ No
Record keeping and reporting	☑ Yes ☐ No
Sample collection and analysis:	☑ Yes ☐ No
Manure transfer	☑ Yes ☐ No

Provide name, date and location of most recent documentation:

A Compliance Evaluation inspection was done in Aug. 2012 and we made corrections per that days visit. Christopher Komarkiewicz from DEQ did the inspection

If your answer to any of the above question is no, provide explanation:

Section E – Land Application

Will manure be land applied to land either owned, rented, or leased by the owner or operator of the facility?

☒ Yes If yes, then the information requested in Section E must be provided.

☐ No If no, then provide an explanation of how animal waste at this facility are managed.

Photos and/or Maps

Attach an aerial photograph or map of the site where manure is to be applied. (Use multiple photos/maps if necessary to show required details.) The photo(s)/map(s) must be printed on no larger than an 11"X 17" piece of paper, and must clearly identify the following items:

- Individual field boundaries for all planned land application areas
- A name, number, letter or other means of identifying each individual land application field
- The location of any downgradient surface waters.
- The location of any downgradient open tile line intake structures
- The location of any downgradient sinkholes
- The location of any downgradient agricultural well heads
- The location of all conduits to surface waters
- The specific manure/waste handling or nutrient management restrictions associated with each land application field
- The soil type(s) present and their locations within the individual land application field(s)
- The location of buffers and setbacks around state surface waters, well heads, etc.

Land Application Equipment Calibration

Describe the type of equipment used to land apply wastes and the calibration procedures:
3 manure spreaders - use manure consistency & speed to calibrate
1 slurry tank - adjustable opening for calibration

Manure Sampling and Analysis Procedures

A representative manure sample will be analyzed a minimum of once annually for Total Nitrogen, and Total Phosphorus. Analysis results will be reported in lbs/ton or lbs/1,000 gal. Results of these analyses will be used in determining rates for manure, litter, and process wastewater.

Manure Sample collection will occur according to ARM 17.30.1334 collected and sent to State lab in mid-October 2013

Other (describe)

Soil Sampling and Analysis Procedures

Representative soil (composite) samples from the top 6 inches layer of soil for each field where manure will be applied must be analyzed for phosphorus content at least once every three years. Analyses will be conducted by a qualified laboratory, using the Olsen P test. Results will be reported in parts per million (ppm) and will be used in determining application rates for manure, litter, and process wastewater

Soil samples collection will occur according the methods in ARM 17.30.1334 collected and sent to appropriate lab in mid-Oct 2013

Other (describe)

Phosphorus Risk Assessment

The permittee shall access the risk of phosphorus contamination of state waters. An assessment shall be conducted for each field, under the control of the operator, to which manure, litter or process wastewater will or

may be applied. If a new field is added in the future, then the permittee must submit a revised (modified) NMP. The permittee has the option of using Method A or Method B (below) to complete the assessment. Copies of all tables and calculations used to complete the assessments, as well as the results of the assessments, shall be submitted to the Department and copies shall be maintained on-site at the facility and available for Departmental review. The results of the assessments shall be used to determine the appropriate basis for land application of wastes from the facility.

Method Used

Indicate which method will be used to determine phosphorus application:

Method A – Representative Soil Sample
Method B – Phosphorus Index

Method A – Representative Soil Sample – using this method

a. Obtain one or more representative soil sample(s) from the field per 17.30.1334
b. Have the sample analyzed for Phosphorus by a qualified lab. The "Olsen P test" must be used for the analysis, and the result must be reported in parts per million (ppm)
c. Using the results of the Olsen P test, determine application basis according to the Table below.

Soil Test

Olsen P Soil Test Results (ppm)	Application Basis
<25.0	Nitrogen Needs of Crop
25.1 - 100.0	Phosphorus Needs of Crop
100.0 – 150.0	Phosphorus Needs up to Crop Removal Rate
>150.0	No Application allowed

Method B – Phosphorus Index

a. Complete a phosphorus Index according to the crop grown on each field. Complete table in Appendix A to calculate phosphorus index. For information on filling out specific sections in Appendix A, please refer to the method as described in Natural Resource Conservation Service (NRCS), Agronomy Technical Note MT-77 (rev3), January 2006.
b. Using the calculated Total Phosphorus Index Value, assign the overall site/field vulnerability to phosphorus loss according to the table below.

Total Phosphorus

Total Phosphorus Index Value	Site Vulnerability to Phosphorus Loss
<11	Low
11-21	Medium
22-43	High
>43	Very High

c. Using the calculated Site Vulnerability to Phosphorus Loss, determine the appropriate application basis according to the table below.

Site Vulnerability to Phosphorus Loss	Application Basis
Low	Nitrogen Needs
Medium	Nitrogen Needs
High	Phosphorus Need Up to Crop Removal
Very High	Phosphorus Crop Removal or No Application

The applicant has 2 ways in which to report how manure or process wastewater application rates can be reported to DEQ.

1. **Linear Approach**. Expresses rates of application as pounds of nitrogen and phosphorus. CAFOs selecting the linear approach to address rates of application must include in the NMP submitted to the permitting authority the following information for each crop, field, and year covered by the NMP, which will be used by the permitting authority to establish site-specific permit terms:
- The maximum application rate (pounds/acre/year of nitrogen and phosphorus) from manure, litter, and process wastewater.
- The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field. [If a state does not have an N transport risk assessment, the NMP must document any basis for assuming that nitrogen will be fully used by crops.] The CAFO must specify any conservation practices used in calculating the risk rating.
- The crops to be planted or any other uses of a field such as pasture or fallow fields.
- The realistic annual yield goal for each crop or use identified for each field.
- The nitrogen and phosphorus recommendations from in ARM 17.30.1334 (technical standard) for each crop or use identified for each field.
- Credits for all residual nitrogen in each field that will be plant-available.
- Consideration of multi-year phosphorus application. For any field where nutrients are applied at a rate based on the crop phosphorus requirement, the NMP must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement.
- All other additions of plant available nitrogen and phosphorus (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen).
- The form and source of manure, litter, and process wastewater to be land-applied.
- The timing and method of land application. The NMP also must include storage capacities needed to ensure adequate storage that accommodates the timing indicated.
- The methodology that will be used to account for the amount of nitrogen and phosphorus in the manure, litter, and wastewater to be applied.
- Any other factors necessary to determine the maximum application rate identified in accordance with this Linear Approach.

2. **Narrative Rate Approach**. Expresses a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied. CAFOs selecting the narrative rate approach to address rates of application must include in the NMP submitted to the permitting authority the following information for each crop, field, and year covered by the NMP, which will be used by the permitting authority to establish site-specific permit terms:
- The maximum amounts of nitrogen and phosphorus that will be derived from all sources of nutrients (pounds/acre for each crop and field).
- The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field. The CAFO must specify any conservation practices used in calculating the risk rating.
- The crops to be planted in each field or any other uses of a field such as pasture or fallow fields, including alternative crops if applicable. Any alternative crops included in the NMP must be listed by field, in addition to the crops identified in the planned crop rotation for that field.
- The realistic annual yield goal for each crop or use identified for each field for each year, including any alternative crops identified.
- The nitrogen and phosphorus recommendations from ***[the permitting authority to specify acceptable sources]*** for each crop or use identified for each field, including any alternative crops identified.
- The methodology (including formulas, sources of data, protocols for making determination, etc.) and actual data that will be used to account for: (1) the results of soil tests required by Parts II.A.4.b and III.A.3.g of this

permit, (2) credits for all nitrogen in the field that will be plant- available, (3) the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied, (4) consideration of multi-year phosphorus application (for any field where nutrients are applied at a rate based on the crop phosphorus requirement, the methodology must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement), (5) all other additions of plant available nitrogen and phosphorus to the field (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen), (6) timing and method of land application, and (7) volatilization of nitrogen and mineralization of organic nitrogen.
- Any other factors necessary to determine the amounts of nitrogen and phosphorus to be applied in accordance with the Narrative Rate Approach.
- NMPs using the Narrative Rate Approach must also include the following projections, which will not be used by the permitting authority in establishing site-specific permit terms:

i. Planned crop rotations for each field for the period of permit coverage.
ii. Projected amount of manure, litter, or process wastewater to be applied.
iii. Projected credits for all nitrogen in the field that will be plant-available.
iv. Consideration of multi-year phosphorus application.
v. Accounting for other additions of plant-available nitrogen and phosphorus to the field.
vi. The predicted form, source, and method of application of manure, litter, and process wastewater for each crop

- If the receiving water is on the 303(d) list for nutrients then the narrative rate approach must be used.

a. For the Linear Approach the permittee will complete the Nutrient Budget Worksheet, below, for the next 5 years to which manure or process waste water is or may be applied. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Hoffman – Cobaly Loam

Nutrient Budget Worksheet

Field identification: 1 Year: 2014 Crop: Spring Wheat

Expected Crop Yield: 80 bu/acre

Phosphorus index results or Phosphorus application from soil test:

Method of Application: Spredder

When will application occur: Fall 2013

		Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	0	0	Agvise Lab
2	(-)	Credits from previous legume crops, lbs/ac			
3	(-)	Residuals from past manure production lbs/acre			
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre			
5	(-)	Nutrients supplied in irrigation water, lbs/acre			
6		**= Additional Nutrients Needed, lbs/acre**			
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	10.7/ton x 1	7.79/ton x 1	Manure test
8	(x)	Nutrient Availability factor, for Phosphorus based application use 1.0	10.7	7.79	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	10.7/ton	7.79/ton	
10		Additional Nutrients needed, lbs/acre (calculated above)			
11	(/)	Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)			
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**			

Comments:

Based on soil sample will not apply manure here

Albini - Cobbly Loam

Nutrient Budget Worksheet

Field identification: 2 Year: 2014 Crop: Alfalfa

Expected Crop Yield: 5 ton/acre

Phosphorus index results or Phosphorus application from soil test:

Method of Application: Spreader

When will application occur: Fall 2011

		Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	130	0	Agvise Lab
2	(-)	Credits from previous legume crops, lbs/ac	0	0	
3	(-)	Residuals from past manure production lbs/acre			
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	0	0	
5	(-)	Nutrients supplied in irrigation water, lbs/acre			
6		**= Additional Nutrients Needed, lbs/acre**			
7		**Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)**	10.7/ton	7.79/ton	Manure test
8	(x)	**Nutrient Availability factor, for Phosphorus based application use 1.0**	x 1 10.7/ton	x 1 7.79/ton	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	10.7	7.79	
10		**Additional Nutrients needed, lbs/acre (calculated above)**	0	0	
11	(/)	**Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)**			
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**	0	0	

Comments:

No manure will be applied to alfalfa ground this year.

Karch – Cobby Loam

Nutrient Budget Worksheet

Field identification: 3 Year: 2014 Crop: Spring Wheat

Expected Crop Yield: 80 bu./acre

Phosphorus index results or Phosphorus application from soil test:

Method of Application: Spreader

When will application occur: Fall 2013

		Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	0	0	Agvise Labs
2	(-)	Credits from previous legume crops, lbs/ac	0	0	
3	(-)	Residuals from past manure production lbs/acre			
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	0	0	
5	(-)	Nutrients supplied in irrigation water, lbs/acre	0	0	
6		**= Additional Nutrients Needed, lbs/acre**	0	0	
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	10.7/ton	7.79/ton	Manure Test
8	(x)	Nutrient Availability factor, for Phosphorus based application use 1.0	x 1 10.7	x 1 7.79	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	10.7	7.79	
10		**Additional Nutrients needed, lbs/acre (calculated above)**			
11	(/)	**Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)**			
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**			

Comments:

Based on soil sample no manure needed.

West of House - Cobbly Loam

Nutrient Budget Worksheet

Field identification: 4 Year: 2014 Crop: spring wheat

Expected Crop Yield: 90 bu/acre

Phosphorus index results or Phosphorus application from soil test:

Method of Application: Spreader

When will application occur: Fall 2013

		Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	0	55	Agwise Lab
2	(-)	Credits from previous legume crops, lbs/ac	0	0	
3	(-)	Residuals from past manure production lbs/acre	0	0	
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	0	0	
5	(-)	Nutrients supplied in irrigation water, lbs/acre	0	55	
6		**= Additional Nutrients Needed, lbs/acre**	0	55	
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	10.7/ton x1	77.9/ton x1	manure test
8	(x)	Nutrient Availability factor, for Phosphorus based application use 1.0	10.7	77.9	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	10.7	77.9	
10		Additional Nutrients needed, lbs/acre (calculated above)	0	55	
11	(/)	Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)	0	77.9	
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**	0	about 1/10 of ton per acre	

Comments:

Dryland — Brocko silt loam & Quagle Brodyk Silt Loam

Nutrient Budget Worksheet

Field identification: Dryland Year: 2014 Crop: Barley (170 acres)

Expected Crop Yield: 50 Bushel to acre

Phosphorus index results or Phosphorus application from soil test: 9ppm

Method of Application: Broadcast

When will application occur: May 2014

Nutrient Budget			Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	125	30	Agrise Labs
2	(-)	Credits from previous legume crops, lbs/ac	Ø	Ø	
3	(-)	Residuals from past manure production lbs/acre			
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	125	30	Agrise Lab
5	(-)	Nutrients supplied in irrigation water, lbs/acre	— dryland —		
6		**= Additional Nutrients Needed, lbs/acre**	Ø	Ø	
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	10.7 lbs/ton	779/ton	Manure Test by State Lab
8	(x)	Nutrient Availability factor, for Phosphorus based application use 1.0	x1 10.7	x1 779	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	10.7	779	
10		Additional Nutrients needed, lbs/acre (calculated above)	Ø	Ø	
11	(/)	Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)	10.7	779	
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**	Ø	Ø	

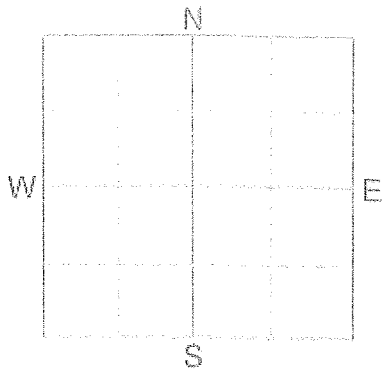
Comments:

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
SAMPLE ID **HOME** #4
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
LARRY KLOMPIEN

SUBMITTED BY: **CE3923**
ROCKY MTN SUPPLY
311 GALLATIN FARMERS
PO BOX 129
BELGRADE, MT 59714

REF # **14700905** BOX # **0**
LAB # **NW140434**

Date Sampled | Date Received **10/31/2013** | Date Reported **11/5/2013**

Nutrient In The Soil		Interpretation			
		Very L	Low	Med	High
0-12" Nitrate	26 lb/ac	**********			
Olsen Phosphorus	10 ppm	**********			
Potassium	333 ppm	**********	**********	**********	**********
Chloride					
0-12" Sulfur	24 lb/ac	**********	**********	*****	
Boron					
Zinc	0.78 ppm	**********	**********		
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	3.0 %	**********	**********		
Carbonate(CCE)					
0-12" Sol. Salts	0.26 mmho/cm	******			

1st Crop Choice		
Alfalfa		
YIELD GOAL		
8 Tons		
SUGGESTED GUIDELINES		
University		
LB/ACRE		APPLICATION
N	**0**	
P_2O_5	**55**	**Broadcast**
K_2O	**0**	
Cl		
S	**25**	**Broadcast**
B		
Zn		**Not Available**
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.1**							

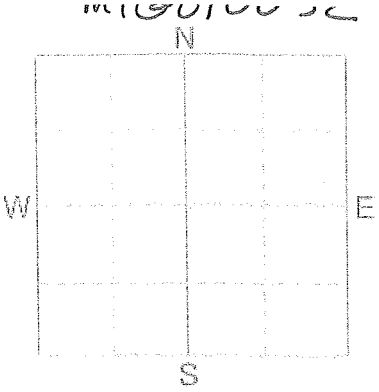
Crop 1: Soil Nitrogen level is estimated at 26 lbs/acre. Nitrogen is credited 50 lbs for the previous crop on University Guidelines. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 80 K2O = 400 University guidelines will build P & K soil test levels to the medium range over many years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
SAMPLE ID **HOFFMAN** #1
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
LARRY KLOMPIEN

SUBMITTED BY: **CE3923**
ROCKY MTN SUPPLY
311 GALLATIN FARMERS
PO BOX 129
BELGRADE, MT 59714

REF # **14700906** BOX # **0**
LAB # **NW140383**

Date Sampled | Date Received **10/31/2013** | Date Reported **11/5/2013**

Nutrient In The Soil		Interpretation			
			Low	Med	High
Nitrate	**0-12" 20 lb/ac**	**********			
Phosphorus	**Olsen 15 ppm**	**********	**********		
Potassium	**397 ppm**	**********	**********	**********	
Chloride					
Sulfur	**0-12" 16 lb/ac**	**********	**********		
Boron					
Zinc	**1.07 ppm**	**********	**********		
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**3.0 %**	**********	**********		
Carbonate(CCE)					
Sol. Salts	**0-12" 0.24 mmho/cm**	******			

1st Crop Choice		
Alfalfa		
YIELD GOAL		
8 Tons		
SUGGESTED GUIDELINES		
University		
LB/ACRE		APPLICATION
N	**0**	
P_2O_5	**0**	
K_2O	**0**	
Cl		
S	**25**	**Broadcast**
B		
Zn		**Not Available**
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.4**							

Crop 1: Soil Nitrogen level is estimated at 20 lbs/acre. Nitrogen is credited 50 lbs for the previous crop on University Guidelines. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 80 K2O = 400 University guidelines will build P & K soil test levels to the medium range over many years.

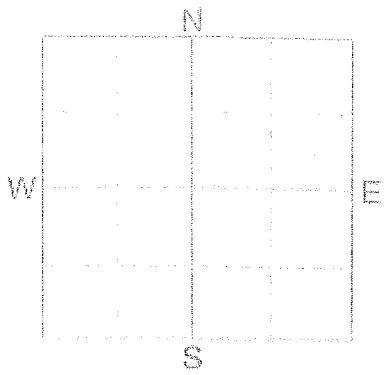
11/12/13

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **WEST AMSTERDAM**
SAMPLE ID
FIELD NAME #5
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP



SUBMITTED FOR:
LARRY KLOMPIEN

SUBMITTED BY: **CE3923**
ROCKY MTN SUPPLY
311 GALLATIN FARMERS
PO BOX 129
BELGRADE, MT 59714

REF # **11831755** BOX # **0**
LAB # **NW140375**

Date Sampled | Date Received **10/31/2013** | Date Reported **11/5/2013**

Nutrient In The Soil		Interpretation			
		Low	Med	High
Nitrate	0-12" **10 lb/ac**	******		
Phosphorus	**Olsen** **9 ppm**	**********		
Potassium	**282 ppm**	**********	**********	**********
Chloride				
Sulfur	0-12" **12 lb/ac**	**********		
Boron				
Zinc	**0.29 ppm**	******		
Iron				
Manganese				
Copper				
Magnesium				
Calcium				
Sodium				
Org.Matter	**1.6 %**	******		
Carbonate(CCE)				
Sol. Salts	0-12" **0.28 mmho/cm**	*******		

1st Crop Choice		
Barley		
YIELD GOAL		
90 BU		
SUGGESTED GUIDELINES		
University		
LB/ACRE		APPLICATION
N	**125**	
P_2O_5	**30**	**Broadcast**
K_2O	**10**	**Band (Starter)***
Cl		
S	**25**	**Broadcast**
B		
Zn		**Not Available**
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.5**							

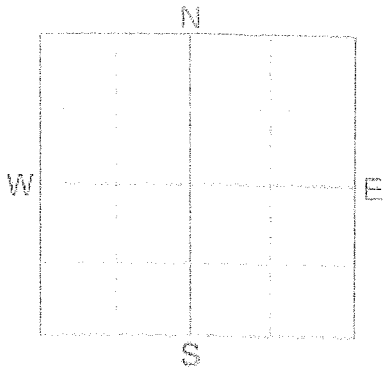
Crop 1: Soil Nitrogen level is estimated at 20 lbs/acre. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 42 K2O = 45 University guidelines will build P & K soil test levels to the medium range over many years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
SAMPLE ID **ALBINI** #2
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Barley**



SUBMITTED FOR:
LARRY KLOMPIEN

SUBMITTED BY: **CE3923**
ROCKY MTN SUPPLY
311 GALLATIN FARMERS
PO BOX 129
BELGRADE, MT 59714

REF # **14700907** BOX # **0**
LAB # **NW140390**

Date Sampled | Date Received **10/31/2013** | Date Reported **11/5/2013**

Nutrient In The Soil		Interpretation			
		Low	Med.	High	
Nitrate	**0-12"** **64 lb/ac**	**********	**********	**********	
Phosphorus	**Olsen** **117 ppm**	**********	**********	**********	
Potassium	**1183 ppm**	**********	**********	**********	
Chloride					
Sulfur	**0-12"** **48 lb/ac**	**********	**********	**********	
Boron					
Zinc	**2.54 ppm**	**********	**********	**********	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.3 %**	**********	**********		
Carbonate(CCE)					
Sol. Salts	**0-12"** **0.36 mmho/cm**	**********			

1st Crop Choice		
Barley		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
University		
LB/ACRE		APPLICATION
N	**130**	
P_2O_5	**0**	
K_2O	**0**	
Cl		
S	**0**	
B		
Zn		**Not Available**
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.9**							

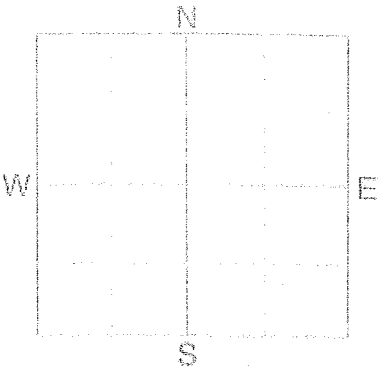
Crop 1: Soil Nitrogen level is estimated at 64 lbs/acre. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 61 K2O = 65 University guidelines will build P & K soil test levels to the medium range over many years.

AGVISE LABORATORIES

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
SAMPLE ID ~~KORELS~~ Karch #3
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
LARRY KLOMPIEN

SUBMITTED BY: **CE3923**
ROCKY MTN SUPPLY
311 GALLATIN FARMERS
PO BOX 129
BELGRADE, MT 59714

REF # **14700908** BOX # **0**
LAB # **NW140401**

Date Sampled | Date Received **10/31/2013** | Date Reported **11/5/2013**

Nutrient In The Soil		Interpretation			
		Low	Med	High	
Nitrate **0-12"**	**34 lb/ac**	**********	**********	**********	
Phosphorus **Olsen**	**18 ppm**	**********	**********	**********	
Potassium	**577 ppm**	**********	**********	**********	
Chloride					
Sulfur **0-12"**	**24 lb/ac**	**********	**********		
Boron					
Zinc	**1.22 ppm**	**********	**********	**********	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**2.9 %**	**********	**********		
Carbonate(CCE)					
Sol. Salts **0-12"**	**0.28 mmho/cm**	*******			

1st Crop Choice		
Alfalfa		
YIELD GOAL		
8 Tons		
SUGGESTED GUIDELINES		
University		
LB/ACRE		APPLICATION
N	**0**	
P_2O_5	**0**	
K_2O	**0**	
Cl		
S	**25**	**Broadcast**
B		
Zn		**Not Available**
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.9**							

Crop 1: Soil Nitrogen level is estimated at 34 lbs/acre. Nitrogen is credited 50 lbs for the previous crop on University Guidelines. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 80 K2O = 400 University guidelines will build P & K soil test levels to the medium range over many years.

Section F - CERTIFICATION

Permittee Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print)		
Larry Hampien	Lorraine Klompien	
B. Title (Type or Print)		**C. Phone No.**
Owners		282-7697
D. Signature		**E. Date Signed**
		Oct. 21, 2013

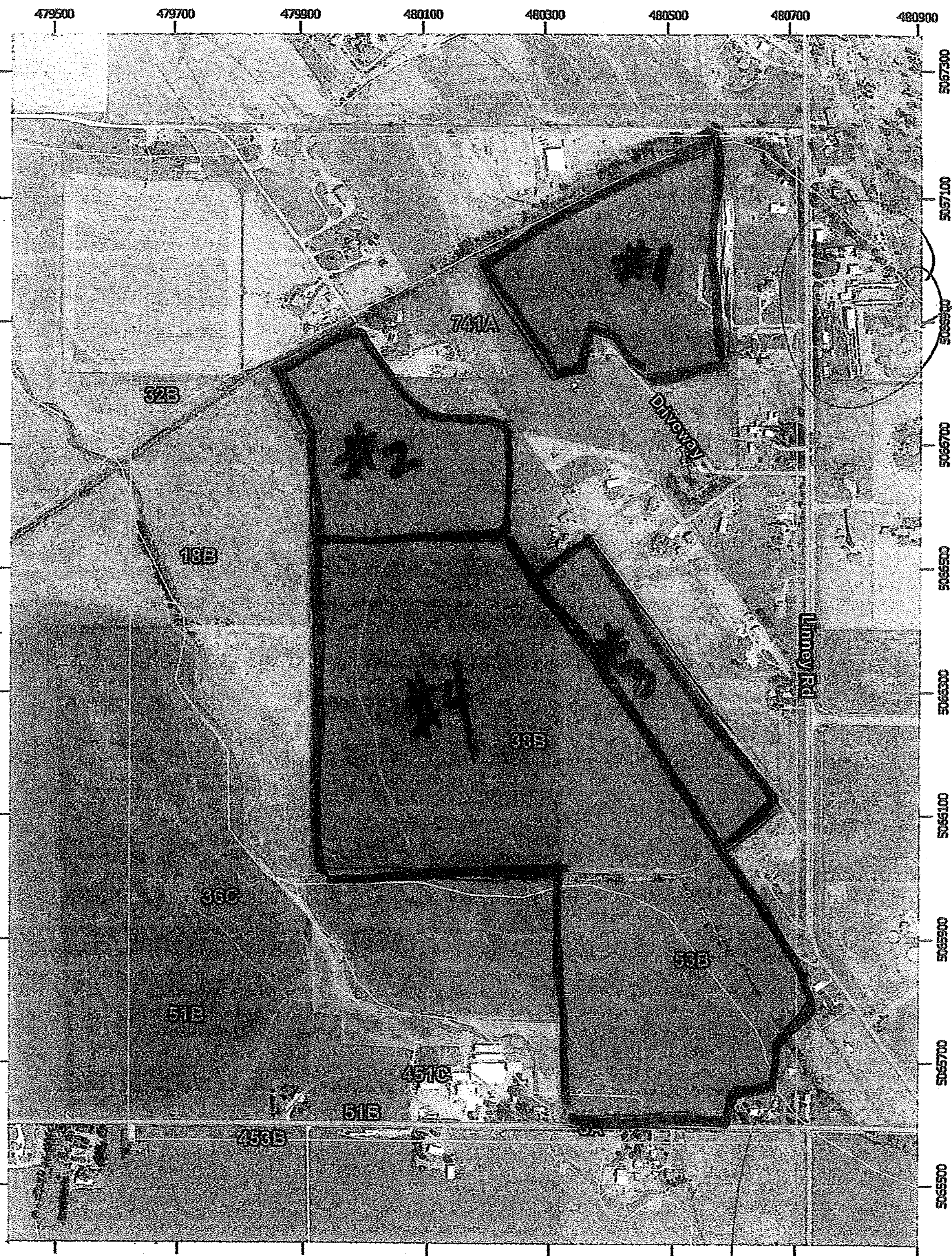
The Department will not process this form until all of the requested information is supplied, and the appropriate fees are paid. Return this form and the applicable fee to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

RECEIVED
OCT 29 2013
DEQ/WPB
PERMITTING & COMPLIANCE DIV.

3 Hazin' C Dairy

Soil Map—Gallatin County Area, Montana
✱ (Application Sites near Klompien dairy) ✱



Fields

Hoffman
Beaverell-Beauwan Complex 741A

Albini (741A)
Beaverell-Beauwan Complex & 38B Chinook fine sandy loam

Karch
Beaverell-Beauwan complex 741A & Chinook fine sandy loam 38B & Amsterdam silt loam 53B

West of Home
Beaverell-Beauwan Complex 741A & Amsterdam silt loam 53B & Chinook fine sandy loam 38B

Map Scale: 1:9,510 if printed on A portrait (8.5" x 11") sheet.

N

0 100 200 400 600 Meters

0 450 900 1800 2700 Feet

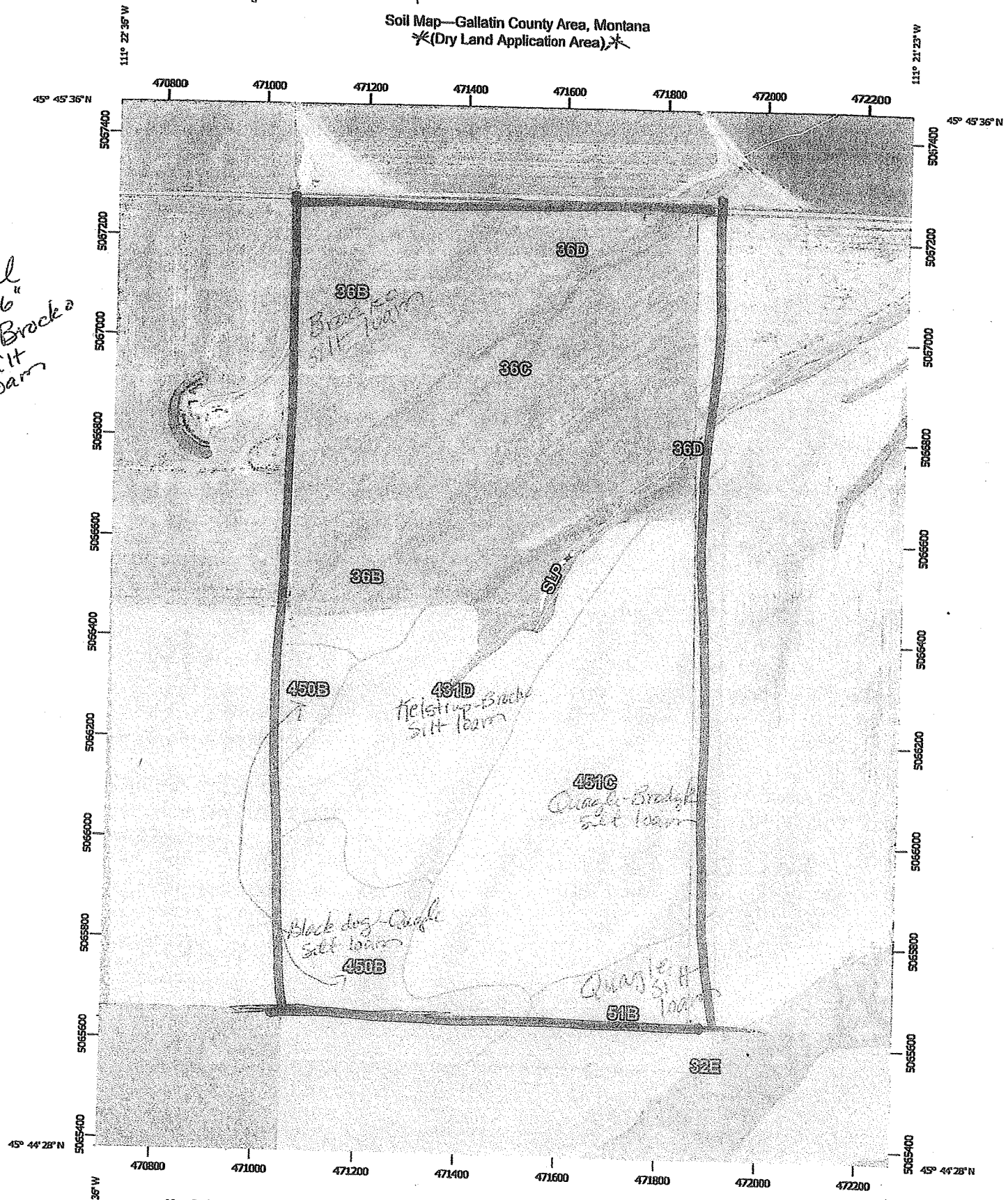
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

Larry & Lorraine Klompien
3 Hanson's C Dairy

CAFO MTG010052

Soil Map—Gallatin County Area, Montana
(Dry Land Application Area)

all "36" is Brocko silt loam



Map Scale: 1:10,100 if printed on A portrait (8.5" x 11") sheet.

N

0 100 200 400 600 Meters

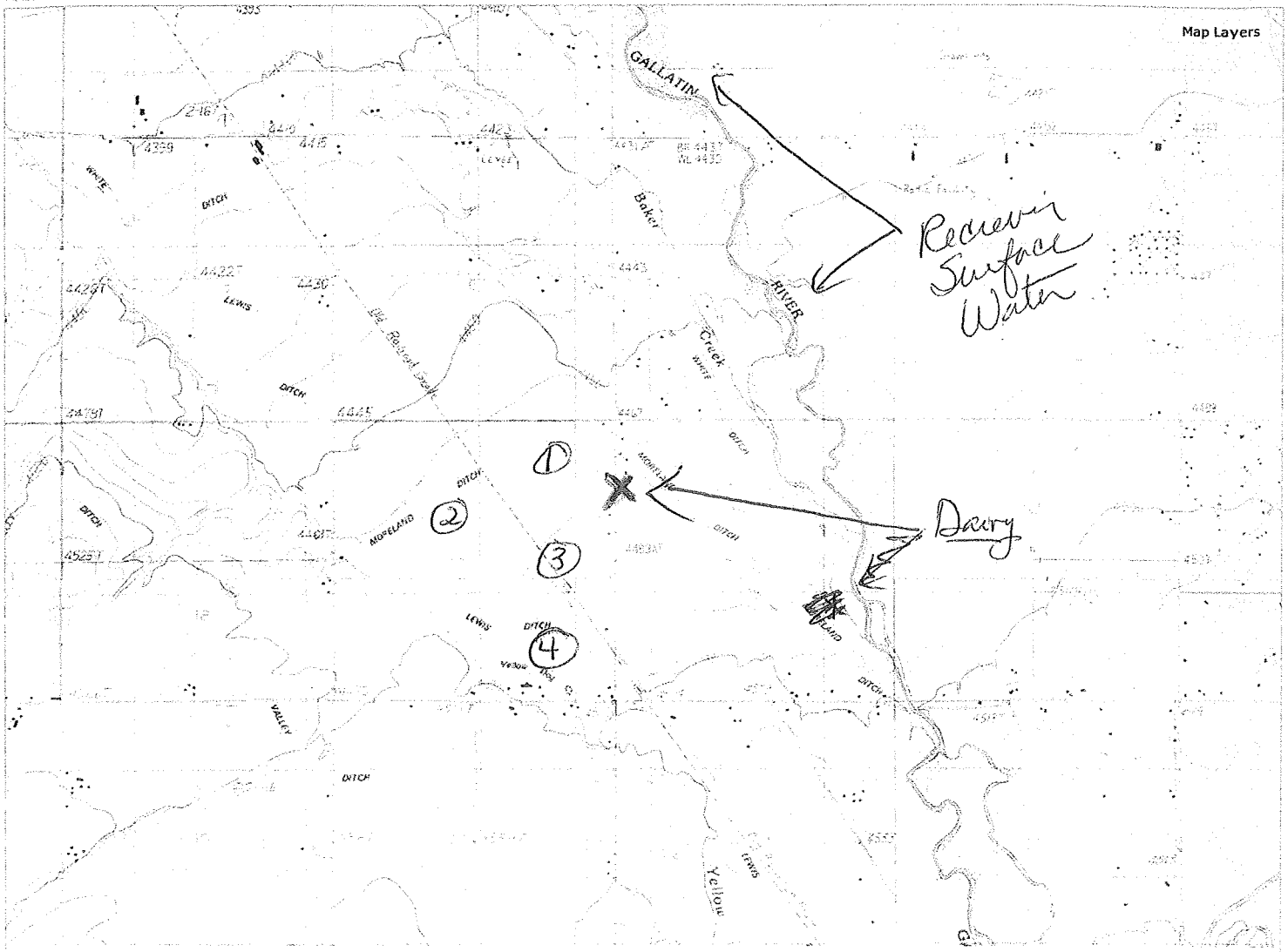
0 450 900 1800 2700 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

Montana Department of Environmental Quality — Mapping DEQ's Data

Help About Legend Selections Basemaps Search for Address: ex. 118 Roberts St, 59601 Find Address

Map Layers



Larry & Lorraine Klompien

3 Hangin' C Dairy

CAFO # MTG 010052

Topo map of location of facility with 1 mile radius extension, site of receiving surface water (Gallatin River).

Approximate locations of where manure is spread: Field 1-4, dryland is over 4 miles away #5

See next page

Fields 1, 2, 3 + 4

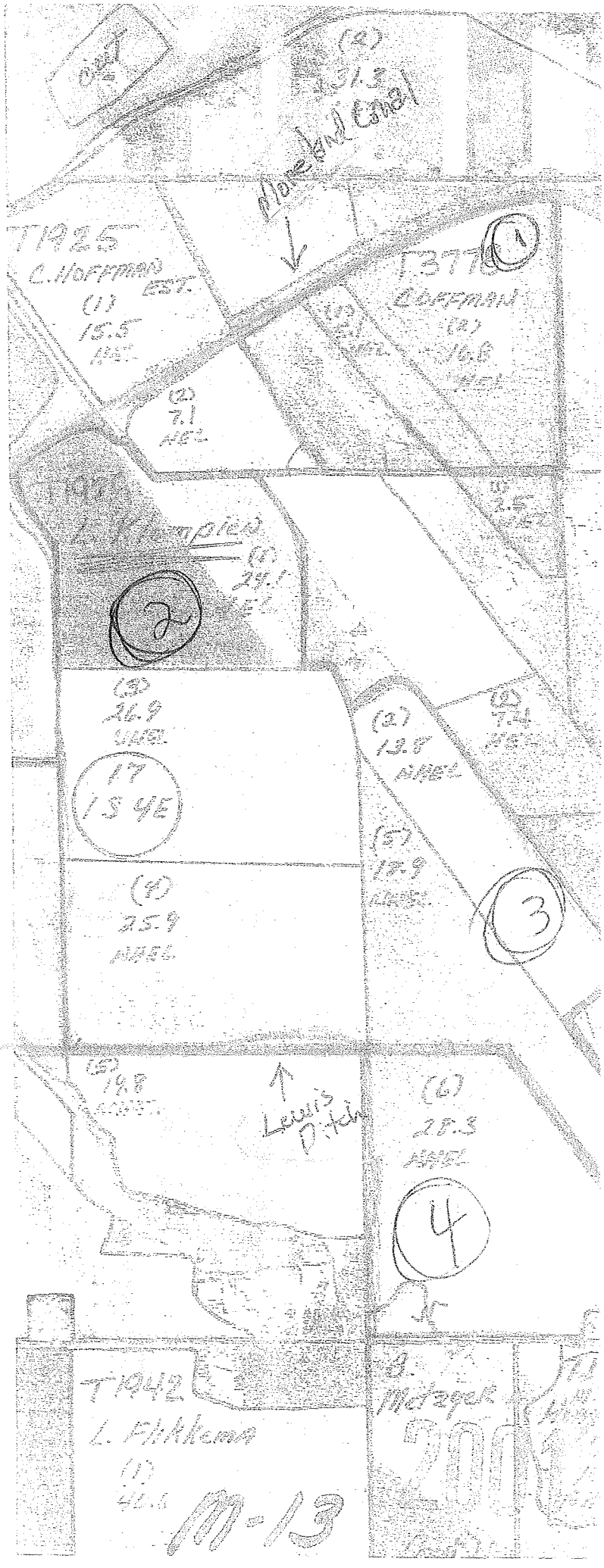
1) Down gradient surface H_2O > outlined in Blue

2) No agriculture well heads near these fields

3) Soil type see attached NRCS maps

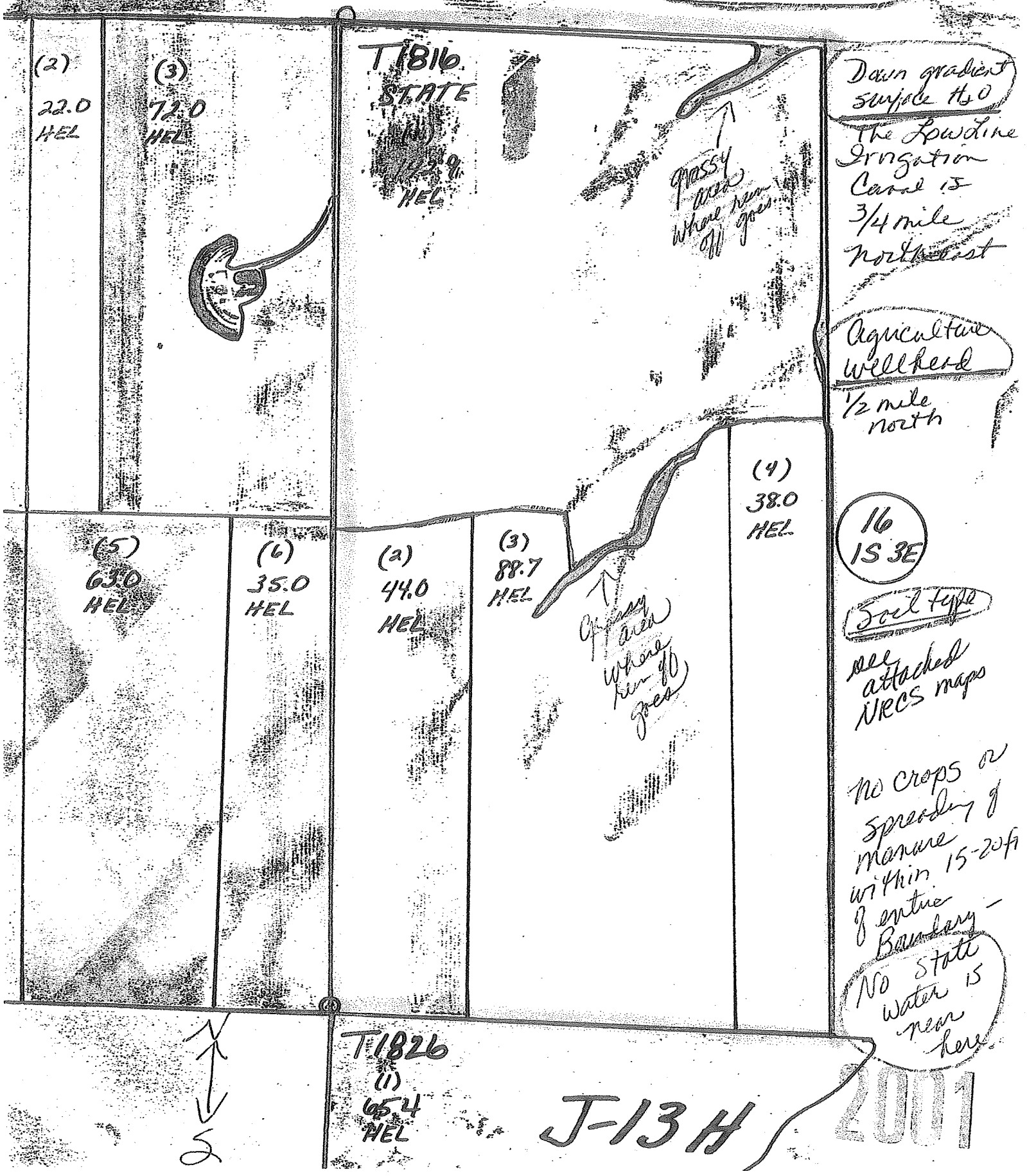
4) No crops or spreading of manure within 25' of state water. There is grass + trees along the state water.

Larry + Lorraine Klompien
3 Klompien C Dairy
CAFO permit MTG 010052



Larry & Jon Thompson — State Land Leased
3069 Casner Rd.
Manhattan, MT 59741
(282-7697)

Field #5



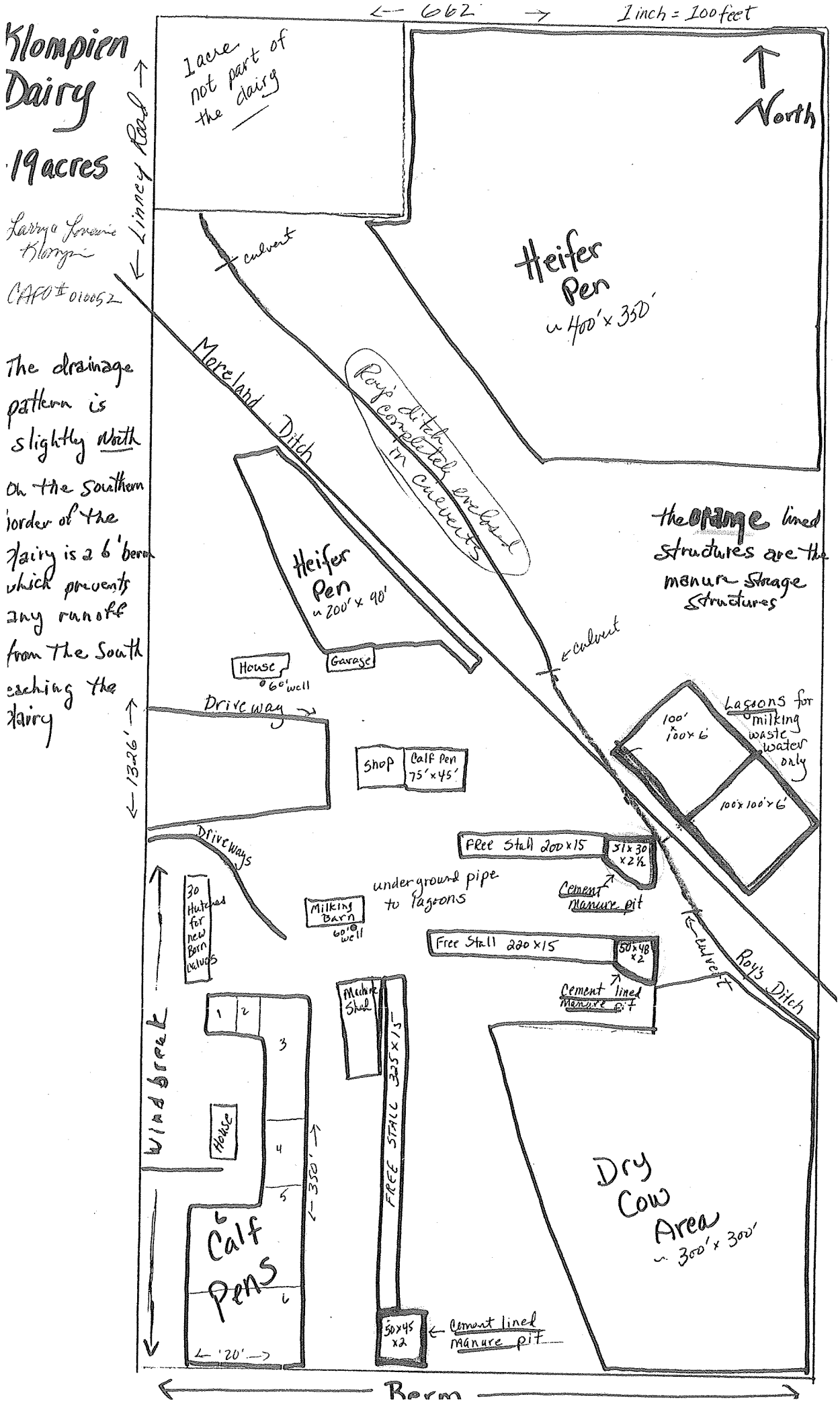
J-134

2011

Map Unit Legend

Soil types

Gallatin County Area, Montana (MT622)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3A	Glendive sandy loam, 0 to 2 percent slopes	6.3	1.2%
18B	Clarkstone silt loam, 0 to 4 percent slopes	34.0	6.2%
32B	Amesha loam, 0 to 4 percent slopes	3.8	0.7%
36C	Brocko silt loam, 4 to 8 percent slopes	10.7	2.0%
38B 2, 3 & 4	Chinook fine sandy loam, 0 to 4 percent slopes	72.8	13.3%
51B	Quagle silt loam, 0 to 4 percent slopes	41.8	7.7%
53B 4	Amsterdam silt loam, 0 to 4 percent slopes	87.1	16.0%
401A Dairy	Rivra, moist-Ryell-Bonebasin, 0 to 2 percent slopes	2.8	0.5%
451C	Quagle-Brodyk silt loams, 4 to 8 percent slopes	16.5	3.0%
453B	Amsterdam-Quagle silt loams, 0 to 4 percent slopes	2.4	0.4%
741A Dairy # 1, 2, 3, 4	Beaverell-Beavwan complex, 0 to 2 percent slopes	267.7	49.0%
Totals for Area of Interest		546.0	100.0%


Klompien Dairy
19 acres
Larry & Lorraine Klompien
CAFO # 010052
The drainage pattern is slightly North on the Southern border of the dairy is a 6' berm which prevents any runoff from the South reaching the dairy
← 662 →
1 inch = 100 feet
1 acre not part of the dairy
North
← Linney Road →
culvert
Heifer Pen ~ 400' x 350'
Roy's ditch completely enclosed in culverts
Moreland Ditch
Heifer Pen ~ 200' x 90'
the orange lined structures are the manure storage structures
House
60' well
Garage
Driveway
culvert
← 1326' →
Lagoons for milking waste water only
100' x 100' x 6'
100' x 100' x 6'
Shop
Calf Pen 75' x 45'
Driveways
Free Stall 200 x 15
31 x 30 x 2½
underground pipe to lagoons
Cement manure pit
30 Hutches for new born calves
Milking Barn
60' well
Free Stall 220 x 15
50 x 48 x 2
culvert
Roy's Ditch
Cement lined Manure pit
Machine Shed
1
2
3
4
5
Wind break
House
FREE STALL 325 x 15
← 350' →
Dry Cow Area ~ 300' x 300'
Calf Pens
← 120' →
50 x 45 x 2
← Cement lined manure pit
Barn

Larry & Lompsien Dairy

Dead Animal Burial Site

CAFO #01005